

REMARKS

Applicant has filed a substitute specification herewith.

Figure 1 has been amended to add reference number 12 to indicate the casing and reference number 20 to indicate the blow hole. The reference numbers 12-1, 12-2, 14-1, 14-2, 16-1 and 16-2 have been amended to 12a, 12b, 14a, 14b, 16a and 16b, respectively. Figure 2 has been amended to include the reference number "h" for the height and the reference number "20" for the blow hole 20. Replacement figures are included.

The drawings are objected to under 37 CFR 1.84(p)(5) because they do not include the reference number "12" for the casing. Figure 1 has been amended to include the reference number 12.

The drawings are objected to under 37 CFR 1.83(a) because they do not show the detail structure of the blow hole with respect to the reference numbers of the female/male rotors as described in the specification. Figure 1 has been amended to show the blow hole 20.

Claims 1 and 2 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement because the claims contain subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains to make and/or use the invention. The Examiner states it is not clear how fluid moves through the female and male rotors, where the direction of the male/female rotation is, and which flank portion of the lobes of the female/male rotors is primary and which is secondary with respect to the rotational direction of the female/male rotor.

Figure 1 has been amended to show the direction of rotation of the male rotor and the female rotor. Support for this amendment is found in paragraph 15 and Figure 1, which describes and shows the leading flank D-B and the trailing flank A-E. The location of the leading flank D-B and the trailing flank A-E indicate the direction of rotation. Paragraph 15 has also been amended to describe the direction of rotation. As known, the leading flank D-B is leading relative to a direction of rotation of the rotors. The Examiner also stated that it is not clear how fluid moves though the female and male rotors. The fluid moves as the rotors rotates about the axes A and B, as known in the art. The claims have been amended to recite a leading flank portion and a trailing flank portion relative to the rotational direction of the female/male rotors.

The specification is objected to as failing to provide proper antecedent basis for the recitation "female/male rotor having lobes." Paragraph 13 of the specification has been recited to refer to "lobes."

Claims 1 and 2 are rejected under 35 U.S.C. 102(b) as being anticipated by Bowman (US Patent No. 4,412,796). Bowman does not disclose a pair of rotors including a male rotor and a female rotor including helical lobes each having a leading flank portion having a profile formed from at least one ellipse, and a trailing flank portion of the helical lobes of at least one of the male rotor and the female rotor has a profile formed from at least one ellipse. Bowman discloses a screw rotor including a female rotor 10 with an elliptical section 28 (on a leading flank) and male rotor 38 with an elliptical section 52 (on a leading flank). The trailing flank of both the female rotor 10 and the male rotor 38 are formed of portions of an epicycloids and not an elliptical section as claimed. The claimed invention is not anticipated, and Applicant respectfully requests that the rejection be withdrawn.

Thus, claims 1-14 are in condition for allowance. No additional fees are seen to be required. The Commissioner is authorized to charge Deposit Account No. 03-0835, in the name of Carrier Corporation, \$450.00 for the two month extension fee. If any additional fees are due, however, the Commissioner is authorized to charge Deposit Account No. 50-1482, in the name of Carlson, Gaskey & Olds, P.C., for any additional fees or credit the account for any overpayment. Therefore, favorable reconsideration and allowance of this application is respectfully requested.

Respectfully Submitted,

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CERTIFICATE OF MAIL

I hereby certify that the enclosed response is being deposited with the United States Postal Service as First Class Mail, postage prepaid, in an envelope addressed to Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on May 15, 2006.


Amy M. Spaulding